

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization  
International Bureau(43) International Publication Date  
24 July 2003 (24.07.2003)

PCT

(10) International Publication Number  
WO 03/059280 A3(51) International Patent Classification<sup>7</sup>: A61K 9/127

(21) International Application Number: PCT/US03/00377

(22) International Filing Date: 8 January 2003 (08.01.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
60/346,287 9 January 2002 (09.01.2002) US(71) Applicant (for all designated States except US): ELAN  
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22313-1404 (US).(81) Designated States (national): AE, AG, AL, AM, AT, AU,  
AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU,  
CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,  
GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,  
LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW,  
MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG,  
SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC,  
VN, YU, ZA, ZM, ZW.(84) Designated States (regional): ARIPO patent (GH, GM,  
KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),  
Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),  
European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE,  
ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI,  
SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN,  
GQ, GW, ML, MR, NE, SN, TD, TG).

## Declarations under Rule 4.17:

- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for the following designations AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)
- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii)) for all designations

## Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

(88) Date of publication of the international search report:  
16 October 2003

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: EFFICIENT LIPOSOMAL ENCAPSULATION

(57) Abstract: The present invention concerns a method for preparing liposomes, said method comprising the following steps: (I) mixing at least one liposome-forming lipid, a water-miscible organic solvent and aqueous medium Y to form a gel or liquid containing gel particles without sonication; and thereafter (II) (a) mixing the gel or liquid containing gel particles with aqueous medium Z1 to directly form the liposomes; (b) (i) mixing the gel or liquid containing gel particles with aqueous medium Z1 to form a curd or curdy substance; and (ii) mixing the curd or curdy substance with aqueous medium Z2 to directly form the liposomes; or (c) (i) cooling the gel or liquid containing gel particles to form a waxy substance; and (ii) mixing the waxy substance with aqueous medium Z1 to directly form the liposomes; wherein aqueous media Y, Z1 and Z2 are the same or different.



WO 03/059280 A3

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/US03/00377

## A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : A 61K 9/127

US CL : 424/450; 264/4.1, 4.3

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 424/450; 264/4.1, 4.3

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched  
~~NONE~~

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

WEST:

Search terms: liposomes, vesicles, alcohol, ethanol, acidic phospholipids, phosphatidic acid, gel.

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 5,741,513 A (GHYCZY et al) 21 April 1998, abstract, col. 3, line 24 through col. 5, line 56 and Examples.	1-106

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Further documents are listed in the continuation of Box C.

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See patent family annex.

"A"	document defining the general state of the art which is not considered to be of particular relevance	"T"	later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"E"	earlier document published on or after the international filing date	"X"	document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"I"	document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"Y"	document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"O"	document referring to an oral disclosure, use, exhibition or other means	"Z"	document member of the same patent family
"P"	document published prior to the international filing date but later than the priority date claimed		

Date of the actual completion of the international search

25 APRIL 2003

Date of mailing of the international search report

11 AUG 2003

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**INTERNATIONAL SEARCH REPORT**

PCT/US02/40209

**Continuation of B. FIELDS SEARCHED Item 3:**

WEST 2.1, MEDICINE/BIOTECH (compendium databases on DIALOG) search terms: inventor names, HLA?, mhc, class I, neuron?, plastic?, synap?